

Postpartum Depression Protocols in a NICU: Benefits and Outcomes

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BACKGROUND

Suicide is the leading cause of maternal death up to one year after giving birth (Chin et al., 2022). Postpartum Depression (PPD), characterized by persistent sadness, lack of interest, low self-esteem, sleep disturbances, loss of appetite, anxiety, irritability with a hostile attitude towards infants, self-blame, and feelings of humiliation, impacts both maternal health and infant development (Carlson et al., 2025). The NICU environment adds unique risk factors, such as prolonged infant hospitalization and heightened parental stress, which can further increase vulnerability to maternal depression. The American Academy of Pediatrics (AAP) recommends mothers be screened for PPD at their 1-, 2-, 4-, and 6-month well-infant visits (2022). PPD rates can be as high as 40% in the early postpartum period among women with premature infants (<37 weeks' gestational age), who's infants are not receiving the traditional well baby visits. During this NICU stay, the mother does not receive the suggested screenings and, therefore, does not receive referrals to mental health professionals for intervention.

PURPOSE

- Implement a PPD protocol in a NICU to identify, address, and decrease symptoms of maternal depression **November 2026**
- Enhance maternal mental health support in the NICU and develop a manual for sustainability

METHODS

Pre/Post-Test Quasi Experimental Design

- **Participants:** Mothers of infants admitted to the UMC NICU were recruited. Eligible participants were ≥18 years old, have infant 24+ week gestation and sustained life for 24+ hours, and is medically stable. Exclusion criteria included mothers of infants not in the NICU, inability to consent, cognitive impairments, or language barriers beyond English/Spanish. Participants were identified through daily NICU census and referrals from nurses, social workers, and NICU staff.
- **Recruitment & Consent:** Participants were approached in a private by trained staff, provided with study information, and completed informed consent prior to participation.
- **Study Design:** Conducted over a six-week period during the NICU stay, including enrollment at admission and follow-up at discharge (or at 6 weeks if hospitalization exceeded that timeframe).
- **Intervention:** Participants engaged in structured support sessions aimed at improving maternal coping, comfort, and caregiving confidence/competence.
- **Data Collection:** Depression symptoms were measured using the Edinburgh Postnatal Depression Scale (EPDS)

RESULTS

Table 1
Descriptive Statistics

	Pre Total	Post Total	Days	Number of Sessions
Mean	5.57	3	14.43	2.14
Standard Deviation	5.38	4.69	13.3	0.38
Minimum	0	0	3	2
Maximum	16	13	38	3

Table 2
Paired Sample T-Test

	t	df	p-value	95% Confidence Interval	Mean Difference
Pair 1	2.64	6	0.03831	0.192 4.95	2.57

CONCLUSIONS

Statistically significant reduction in depressive symptoms from pre to post test EPDS scores, which supports the efficacy of a PPD protocol in the NICU

- Initiative of a trauma-informed PPD protocol supported early identification and intervention to enhance maternal well-being and mother–infant bonding
- Established sustainable processes for continued intervention delivery
- Collaboration with UMC NICU for continued utilization
- Emphasized early identification and maternal support into standard practice

REFERENCES



EXAMPLES OF SUPPORT SESSION RESOURCES/TOPICS:

Our NICU Journal

Daily Notes and Memories

This Journal Belongs to: _____

MANAGING STRESS: BREATHING HANDOUT

"Smell the flowers and blow out the candles."

4 seconds in → 4 seconds out

Box Breathing: Trace the box with your finger

4 seconds in → 4 seconds out

Hold → Breathe In → Hold → Breathe Out → Hold

DISCHARGE CHECKLIST

☐ Follow up appointments	☐ Bottles/Feeding System
☐ Identify your support system	☐ Safe sleep education reviewed
☐ Understanding developmental milestones	☐ Know the signs of postpartum depression
☐ Safe sleep space prepared	☐ Aware of available mental health resources

TAKING CARE OF YOURSELF

Background
Caring for yourself as a mother is not a luxury—it is an essential part of caring for your baby. The physical recovery from birth, combined with emotional adjustments and sleep deprivation, can take a significant toll. Many mothers focus all their energy on their child and place their own needs last, but rest, nourishment, and emotional support are key to your well-being.

☐ **ACTIVITY 1**
• Write a short "kind note" to self to support self-compassion OR writing and shredding a "guilt thought" note.

☐ **ACTIVITY 2**
• **Celebrate personal victories**
• This can be small or big
• Practicing self-care without guilt (e.g., eating, resting, taking a break)
• Getting through a full day without feeling overwhelmed
• Holding your baby for the first time (Bamboo card)
• Asking the care team questions or seeking clarification
• Feeling more comfortable in the NICU
• Getting out of bed and showing up for your baby.

☐ **ACTIVITY 3**
• **Reconnect with meaningful activities**
• What are (or were) your hobbies?
• When was the last time you did it?
• What are your current barriers to participating in it?
• What can you do to re-engage in this hobby?
• What new hobbies do you want to try?

